

Notice of Allowability	Application No.	Applicant(s)	
	10/621,250	LEE ET AL.	
	Examiner	Art Unit	
	Donna V. Lui	2629	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to 17 May 2006.
2. ☒ The allowed claim(s) is/are 1-3,5 and 13-20.
3. ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
 - a) ☒ All b) ☐ Some* c) ☐ None of the:
 1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

* Certified copies not received: _____.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

4. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
 5. ☐ CORRECTED DRAWINGS (as "replacement sheets") must be submitted.
 - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date _____.
 - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date _____.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
6. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

- | | |
|---------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|
| 1. <input type="checkbox"/> Notice of References Cited (PTO-892) | 5. <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 2. <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 6. <input type="checkbox"/> Interview Summary (PTO-413),
Paper No./Mail Date _____. |
| 3. <input type="checkbox"/> Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date _____ | 7. <input checked="" type="checkbox"/> Examiner's Amendment/Comment |
| 4. <input type="checkbox"/> Examiner's Comment Regarding Requirement for Deposit
of Biological Material | 8. <input checked="" type="checkbox"/> Examiner's Statement of Reasons for Allowance |
| | 9. <input type="checkbox"/> Other _____. |

DETAILED ACTION

EXAMINER'S AMENDMENT

1. An examiner's amendment to the record appears below. Should the changes and/or additions be unacceptable to applicant, an amendment may be filed as provided by 37 CFR 1.312. To ensure consideration of such an amendment, it **MUST** be submitted no later than the payment of the issue fee.

Authorization for this examiner's amendment was given in a telephone interview with William Park, Reg. No. 55,523 on Thursday June 30, 2006.

Please cancel claim amendment as follows:

Claims 7-12

Please amend **Claim 1** as follows:

Line 4: after "driver IC", please insert --from a plurality of gate driver ICs--

Please amend **Claim 5** as follows:

Line 1: please change claim dependency and replace 4 with 1

Please amend **Claim 13** as follows:

Line 2: after "driver IC" please insert --from a number of gate driver ICs--

Please amend Claim 18 as follows:

Line 3: after "location data of the" please insert --pertinent--

Allowable Subject Matter

1. **Claims 1-3, 5, 13-20** are allowed.

2. The following is an examiner's statement of reasons for allowance:

Moon (Pub No.: US 2003/0117356) discloses a liquid crystal driving device (*figure 3*) generating gate-on/off signals to drive liquid crystal (*p 4, [0053], lines 1-7; gate-on/off is equivalent to gate-high/low*). Moon teaches the liquid crystal driving device to comprise a gate-off voltage generation means (*gate TCPs 46A to 46D*) for receiving a first gate-off voltage and the location data of the pertinent gate driver IC, and outputting a second gate-off voltage which is generated by subtracting a voltage attenuation quantity corresponding to the location data of the gate driver IC from the first gate-off voltage (*p. 4, [0057], lines 6-10*). The voltage attenuation quantity due to the location of the gate driver IC is equivalent to a predetermined amount proportional to the sum of the line resistances preceding the gate driver IC and the term subtraction is equivalent to reduction.

Jeon (Pub No.: US 2002/0149318) discloses a liquid crystal driving device (*figure 4*). Jeon teaches a sequence recognition means for recognizing the sequence of a pertinent gate driver IC by a pulse width of a start signal inputted in synchronization with a vertical synchronous signal (*p. 6, [0114], lines 1-4*), and generating a carry signal (*p. 6, [0113], lines 1-6; carry signal is equivalent to the "out" of each stage*) and location data of the pertinent gate driver IC.

Shirochi (Patent No.: 5,155,477) discloses a liquid crystal display device (*figure 4*). Shirochi teaches the use of a vertical start pulse for generating scanning signals (*column 7, lines 25-30*).

With respect to **Claim 1**, none of the prior art teaches a gate-off generation means for adding a compensation value corresponding to one of the at least one state signal to the subtracted gate-off voltage.

With respect to **Claim 13**, none of the prior art teaches a control section for calculating a plurality of parameter values on the basis of the number of gate driver ICs and the number of gate lines, comparing the count value counted by the count section with the calculated parameter values, and controlling the reference data generation section to select and output one of the plurality of reference data with reference to a look-up table according to the result of the comparison.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Donna V. Lui whose telephone number is (571) 272-4920. The examiner can normally be reached on Monday through Friday 8:30 a.m. - 5:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571)272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AMR A. AWAD
PRIMARY EXAMINER
Amr A. Awad

Donna V Lui
Examiner
Art Unit 2629